BEFORE THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF APPEALS AND INTERFERENCES

First Named Inventor	:	W. Daniel Hillis
Serial No.	:	10/735,400
Filed	:	December 11, 2003
Art Unit	:	3714
Confirmation No.	:	2127
Examiner	:	Paul D'Agostino
Title	:	VIDEO GAME CONTROLLER HUB WITH CONTROL INPUT REDUCTION AND COMBINATION
Attorney Docket No.	:	APPL0030

June 16, 2008

MAIL STOP: APPEAL BRIEF - PATENTS
Honorable Commissioner of Patents & Trademarks
P.O. Box 1450
Alexandria, VA 22313-1450

BRIEF ON APPEAL

Applicant's Appeal Brief follows.

TABLE OF CONTENTS

REAL PARTY IN INTEREST 3

RELATED APPEALS AND INTERFERENCES 4

STATUS OF CLAIMS 5

STATUS OF AMENDMENTS 6

SUMMARY OF CLAIMED SUBJECT MATTER 7

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL 9

ARGUMENTS 10

CONCLUSION 18

CLAIMS APPENDIX 19

EVIDENCE APPENDIX 24

RELATED PROCEEDINGS APPENDIX 25

REAL PARTY IN INTEREST

The real party in interest is the assignee of the patent application, Applied Minds, Inc., having an address at 1209 Grand Central Avenue, Glendale, CA 91201. Applied Minds Inc's interest in the application is the subject of a recorded assignment which appears at Reel/Frame: 015373/0465.

RELATED APPEALS AND INTERFERENCES

None.

STATUS OF CLAIMS

The status of the claims is as follows:

Claims 1-20 are rejected. Each of these claims is on appeal.

STATUS OF AMENDMENTS

Applicant's reply filed June 14, 2007 as a Response was considered and entered in the Final Office Action, item 1, mailed September 28, 2007.

SUMMARY OF CLAIMED SUBJECT MATTER

The invention is concerned with a method and apparatus for reducing a plurality of control input sets from a plurality of video game controllers to a video game console using a video game controller hub, as set forth in independent Claims 1 and 11 as follows:

1. A video game controller hub, comprising:

means for receiving a plurality of control input sets (Page 4, paragraph 4, lines 3-5; Figure 1: 100) from a corresponding plurality of video game controllers (Page 4, paragraph 4, lines 3-4; Figure 1: 251, 252, 253, 254), each of said control input sets comprising a plurality of control inputs (Page 5, paragraph 1, lines 1-2);

means for reducing said control input sets to at least one reduced control input set according to a reduction scheme (Page 6, paragraph 2, lines 1-8; Page 6, paragraph 4, lines 1-2; Figure 2: 2711, 2712, 2713, 2721, 2722, 2723); and

means for providing said at least one reduced control input set to a video game console (Page 6, paragraph 3, lines 1-2; Figure 2: 271, 272);

wherein each reduced control input set determines an action of a separate on-screen entity (Page 4, paragraph 3, lines 3-4); and

wherein said video game controllers collectively control at least one on-screen entity (Page 4, paragraph 3, lines 6-7).

11. A method for reducing a plurality of control input sets provided from a corresponding plurality of video game controllers to a video game console by a video game controller hub, comprising the steps of:

receiving said control input sets (Page 4, paragraph 4, lines 3-5; Figure 1: 100) from said video game controllers (Page 4, paragraph 4, lines 3-4; Figure 1: 251, 252, 253, 254), each of said control input sets comprising a plurality of control inputs (Page 6, paragraph 2, lines 1-2; Figure 2: 2611, 2612, 2613, 2621, 2622, 2623, 2631, 2632, 2633, 2641, 2642, 2643);

reducing said control input sets to at least one reduced control input set according to a reduction scheme (Page 6, paragraph 2, lines 1-8; Page 6, paragraph 4, lines 1-2; Figure 2: 2711, 2712, 2713, 2721, 2722, 2723): and

providing said at least one reduced control input set to a video game console (Page 6, paragraph 3, lines 1-2; Figure 2: 271, 272);

wherein each reduced control input set determines an action of a separate on-screen entity (Page 4, paragraph 3, lines 3-4); and

wherein said video game controllers collectively control at least one on-screen entity (Page 4, paragraph 3, lines 6-7).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The following ground for rejection is to be reviewed on appeal:

1. Whether the subject matter of claims 1-20 is unpatentable under 35 USC §103(a) over Stiles (USPN 5,404,305) in view of Tanaka (US Pub. No. 2002/0072410).

ARGUMENTS

Claims 1-20 stand rejected under 35 USC §103(a) over USPN 5,404,305 to Stiles (hereinafter, "*Stiles*") in view of US Pub. No. 2002/0072410 to Tanaka (hereinafter "*Tanaka*").

Claim 1

As will be appreciated, in light of both the recent decision by the United States Supreme Court in the case of *KSR International Co. v. Teleflex, Inc. et al.*, (decided April 30, 2007), and, the recent Memorandum to all Technology Center Directors from Deputy Commissioner for Patent Operations, Ms. Margaret A. Focarino (regarding interim "points" for obviousness determinations), the assessment of non-obviousness has been reaffirmed to rely on the Graham factors, with the test of "teaching, suggestion, or motivation" to combine the prior art to meet the claimed subject matter still providing a helpful insight in determining whether claimed subject matter is non-obvious under 35 U.S.C. §103(a).

The four factual inquiries under *Graham* include:

1. determining the scope and content of the prior art;
2. ascertaining differences between the prior art and claims at issue;
3. resolving level of ordinary skill in the pertinent art; and,
4. evaluating evidence of secondary considerations.

Considering the four inquiries of *Graham,* it is respectfully submitted that a prima facie case of obviousness is not presented by the arguments for the rejection of the claims for the following reasons: (1) the cited combination of the references does not teach each and every claim element, (2) no objective teaching or motivation to combine the cited references in the asserted manner has been identified, and (3) neither reference presents a problem that is solved by combining it with the other reference. Consequently, Applicants contend that there would be no apparent reason to combine the cited references, and, that one skilled in the prior art would not have been prompted to combine the references in the manner claimed to yield results according to the claimed invention.

1. Determining the Scope and Content of the Prior Art

The two references at issue are Stiles and Tanaka.

Stiles is directed to a control system that defines the priority levels of a pilot and co-pilot to determine each participant's ability to control the aircraft. (Column 1, line 7; column 2, lines 34-47)

Tanaka is directed to an entertainment device with controllers that contain a display. [0034] The display provides a mechanism for allowing players to correlate their controllers with game characters. [0035]

The Examiner asserts that the combination of these two references results in the video game controller hub recited in claim 1, comprising:

means for receiving a plurality of control input sets from a corresponding plurality of video game controllers, each of said control input sets comprising a plurality of control inputs;

means for reducing said control input sets to at least one reduced control input set according to a reduction scheme; and

means for providing said at least one reduced control input set to a video game console;

wherein each reduced control input set determines an action of a separate on-screen entity; and

wherein said video game controllers collectively control at least one on-screen entity.

As will become clear from the discussion below, the scope and content of the prior art cited was insufficient at the time of the invention to prompt a combination of Stiles and Tanaka to arrive at the claimed invention.

2. Ascertaining Differences between the Prior Art and Claims at Issue

A. Stiles and Tanaka Fail to Disclose All the Features Recited in Claim 1

To establish a prima facie case of obviousness of a claimed invention, all the claimed features must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981,

180 USPQ 580 (CCPA 1974). The combination of Stiles and Tanaka fails to disclose video game controllers that collectively control at least one on-screen entity.

Stiles discloses a means for reducing control input from a pilot and co-pilot for controlling an *aircraft*. The Examiner conceded in the First Action that Stiles fails to disclose "video game controllers [that] collectively control at least one on-screen entity." (Page 3)(emphasis original).[1] For this feature the Examiner cites [0004] and [0005] of Tanaka. These paragraphs, however, are describing the need for a controller with a display for helping the individual player identify the individual game character. Tanaka does not teach or suggest multiple players using multiple controllers to control the same on-screen entity.

The Examiner states in the Final Action that the "video game controllers collectively control at least one on-screen entity in order for the players to recognize which game characters are controlled by which game controller so that the game can be enjoyed by a plurality of players." (Page 4) Applicants respectfully submit that the Examiner does not understand the importance of the term "collective." It appears that the Examiner believes that claim 1 can be construed to recite multiple controllers for controlling multiple on-screen entities *e.g.* controller A for player A and controller B for player B. But the term

1 In the Final Action, the Examiner stated that Stiles fails to disclose video game controllers that control inputs for an on-screen entity. (Page 3) This statement, however, ignores the "collective" aspect of Claim 1. Applicants respectfully point out that the Examiner must examine the claimed invention "as a whole" and evaluate the "subject matter as a whole." MPEP 2142.

"collective" clearly requires that multiple controllers control the same on-screen entity *e.g.* controller A and controller B for player A/B.

Tanaka does not recite this feature because [0004] explicitly states that individual game controllers control individual game characters. In fact, "[t]he game will never proceed smoothly if the players cannot recognize by themselves that which game character is controlled by which controller, so that it is particularly important for such game that the correlation between the game characters and the controllers can be recognized by the players by themselves." [0005] If Tanaka provided for multiple players to control the same on-screen game character, then there would be no need for the controllers to contain a display. Thus, neither Tanaka nor Stiles discloses video game controllers that collectively control at least one on-screen entity.

B. There Is No Teaching, Suggestion, or Motivation to Combine the Prior Art

The teaching, suggestion, or motivation test for obviousness has three basic requirements. First, the combination of references must teach all of the claim elements. Secondly, there must be identified some teaching or suggestion to combine the references in the asserted manner. Thirdly, there must be identified some expectation that the asserted combination would be successful. *See* MPEP 2143. "[A] patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art." *KSR Internat'l.* Even if Stiles and Tanaka contained all the features recited in Claim 1, there is no teaching, suggestion, or motivation to combine these references.

Stiles discloses a control system for combining pilot and co-pilot input signals to control the yaw, pitch, roll, and lift axes of an aircraft. Column 3, lines 39-46, 63-65 Because Stiles discloses a system for flying an aircraft, a person of ordinary skill in the art would not look to a patent application for a video game system to supplement Stiles. Stiles cannot be improved by adding a video game system that has video game controllers containing a display for identifying on-screen entities because these do not aid someone flying an aircraft.

Alternatively, a person of ordinary skill in the art using the video game device disclosed in Tanaka would not seek out Stiles to find a system for reducing control inputs. Tanaka discloses a video game device for individual players to identify their individual on-screen entities. A person of ordinary skill in the art would not look for a system that allows multiple people using multiple controllers to control the same on-screen entity using controllers containing a display for identifying the on-screen entity.

The Examiner's attempt to use Applicants' example to prove how these references could be combined is clearly erroneous: "if two players controlled a racecar so that if one user commanded rapid acceleration and another user commanded no acceleration, the resulting acceleration would be moderate according to Stiles. The players would know which on-screen racecars they can control because they are identified as taught by Tanaka." (Final Action, page 8) If two players are controlling the same racecar, there is no need to use a controller with a display that indicates which on-screen entity that the player is using because there is only one racecar.

Furthermore, the Examiner states: "It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the machine and methods of Tanaka into the system of Stiles in order for players to recognize which game players are controlled by which game controller so that the game can be enjoyed by a plurality of players." (Final Action, page 8) Applicants respectfully point out that whether it is obvious to combine the references to create the invention described by the Examiner is irrelevant because Claim 1 is directed to a game controller hub for reducing a plurality of control input sets so that game controllers collectively control at least one on-screen entity. The Examiner's mischaracterization of Applicants' invention is merely an attempt to combine two nonanalogous references to create the video game controller hub as recited in Claim 1.

"[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). The Examiner has failed to provide any reasoning as to why a person of ordinary skill in the art would combine these references to obtain the claimed invention. Because the Examiner has failed to prove that the references contain any teaching, suggestion, or motivation to combine, and because the Examiner has failed to fully appreciate Applicants' invention as recited in Claim 1, Applicants respectfully submit that Claim 1 is not obvious.

3. Resolving the Level of Ordinary Skill in the Pertinent Art

The Examiner must ascertain what would have been obvious to one of ordinary skill in the art at the time the invention was made, and not to the inventor, a judge, a layman, those skilled in the remote arts, or to geniuses in the art at hand. MPEP 2141.03. Here, the Examiner has not made an effort to resolve the level of ordinary skill in the pertinent art at the time of the invention. Instead, the Examiner simply states that it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Tanaka with Stiles. (Final Action, page 4) Applicants submit that a person of ordinary skill in the art would not even remotely consider combining a system for controlling the actions of an aircraft with a video game system to arrive at the claimed invention because neither of these references presents a problem that is solved by combining it with the other reference.

Claim 11

Because independent Claim 11 recites substantially the same features as Claim 1, it is patentable for at least the same reasons.

Claims 2-10 and 12-20

Because Claims 2-10 and 12-20 depend upon Claim 1 and Claim 11, respectively, they are patentable for at least the same reasons as these claims.

CONCLUSION

For the foregoing reasons, Stiles and Tanaka fail to disclose all the features recited in independent Claims 1 and 11. Furthermore, even if Stiles and Tanaka contained all the features recited in Claims 1 and 11, there is no teaching, suggestion, or motivation to combine the references to obtain the claimed invention. Thus, Applicants respectfully request that the Board reverse the Examiner's rejection of Claims 1-20 for obviousness and order to pass the case to issue.

The Commissioner is authorized to charge any fees due, to the Glenn Patent Group Deposit Account No. 07-1445, Customer No. 22862 (Attorney Docket No. APPL0030).

Respectfully submitted,

Elizabeth Ruzich
Registration No. 54,416

USPTO Customer 22,862

CLAIMS APPENDIX

1. A video game controller hub, comprising:

means for receiving a plurality of control input sets from a corresponding plurality of video game controllers, each of said control input sets comprising a plurality of control inputs;

means for reducing said control input sets to at least one reduced control input set according to a reduction scheme; and

means for providing said at least one reduced control input set to a video game console;

wherein each reduced control input set determines an action of a separate on-screen entity; and

wherein said video game controllers collectively control at least one on-screen entity.

2. The controller hub of Claim 1, wherein said reduction scheme specifies a mapping of said control input sets onto said at least one reduced control input set.

3. The controller hub of Claim 2, wherein said mapping is a one-to-one mapping of said control input sets onto said at least one reduced control input set; and

wherein said controller hub is functionally deactivated and said control input sets are provided unaltered to said video game console.

4. The controller hub of Claim 1, further comprising:

means for combining at least two of said at least one control input from said control input sets according to a combination scheme.

5. The controller hub of Claim 4, wherein said combination scheme specifies at least one combination procedure applied to at least two of said at least one control input, each of which corresponds across said control input sets; said combination procedure producing a single control input within said at least one reduced control input set.

6. The controller hub of Claim 5, wherein said at least one combination procedure is applied to corresponding control input sets in accordance with said reduction scheme.

7. The controller hub of Claim 5, wherein said at least one combination procedure is based upon any of:

a vote;

a selection: and

an averaging calculation.

8. The controller hub of Claim I, wherein said on-screen entity comprises any of:

a vehicle;

a character; and

a team.

9. The controller hub of Claim 1, wherein said reduction scheme is specified by a user of said video game console through a user interface.

10. The controller hub of Claim 4, wherein said combination scheme is specified by a user of said video game console through a user interface.

11. A method for reducing a plurality of control input sets provided from a corresponding plurality of video game controllers to a video game console by a video game controller hub, comprising the steps of:

receiving said control input sets from said video game controllers, each of said control input sets comprising a plurality of control inputs;

reducing said control input sets to at least one reduced control input set according to a reduction scheme: and

providing said at least one reduced control input set to a video game console;

wherein each reduced control input set determines an action of a separate on-

screen entity; and

wherein said video game controllers collectively control at least one on-screen entity.

12. The method of Claim 11, wherein said reduction scheme specifies a mapping of said control input sets onto said at least one reduced control input set.

13. The method of Claim 12, wherein said mapping is a one-to-one mapping of said control input sets onto said at least one reduced control input set; and

wherein said controller hub is functionally deactivated and said control input sets are provided unaltered to said video game console.

14. The method of Claim 11, further comprising the step of:

combining at least two of said at least one control input from said control input sets according to a combination scheme.

15. The method of Claim 14, wherein said combination scheme specifies at least one combination procedure applied to at least two of said at least one control input, each of which corresponds across said control input sets; said combination procedure producing a single control input within said at least one reduced control input set.

16. The method of Claim 15, wherein said at least one combination procedure is applied to corresponding control input sets in accordance with said reduction scheme.

17. The method of Claim 15, wherein said at least one combination procedure is based upon any of:

a vote;

a selection; and

an averaging calculation.

18. The method of Claim 11, wherein said on-screen entity comprises any of:

a vehicle;

a character; and

a team.

19. The method of Claim 11, wherein said reduction scheme is specified by a user of said video game console through a user interface.

20. The method of Claim 14, wherein said combination scheme is specified by a user of said video game console through a user interface.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.